Page 1

May-23-13 7:47:45 AM D3121-21 Accept Item ID: *N900040100* **Revision ID:** Bolt Item Name: *40* Start Date: 5/23/13 **Start Qty: 40.00 Cust Item ID:** Required Date: 5/30/13 Rea'd Otv: 40.00 **Customer:**

Reference:

Start Run Process Plan: No. 23 Tooling: Date: Approvals: Stop OC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr							•	
D3121	Rev E								, 68 −6
100		0.00				,	1		100
100	Hardinge CNC LATHE SMALL		13.	5.23	•	4/3	7		, 2AQ
Hardinge	Mama	0.00						_ 	

Hardinge CNC Lathe Small

1-Turn D3121-21 2-Identify as D3121-213-Deburr break all sharp edges

0.005" to 0.010"

QC2- Inspect parts off machine FAI/FAIB 0.00 110 *110*

Memo

0.00

13.5.23

Setup Start

Quality Control

QC

120 QC8- Inspect parts - second check 0.00

120 QC

Memo

0.00

ff13-05-24 43 0

Quality Control

Work Orde May-23-13 7:47		02053			*102	2053*						Page 2
Item ID: Revision ID: Item Name:	D3121-21				Accept	*N900	040	100)* s	etup Stai	1.7	S1* S2*
Start Date: Required Date: Reference:	5/23/13 5/30/13	Start Qty: 40.00 Req'd Qty: 40.00		*40* *40*		Cust Item II Customer:	D:					
Approvals:	Process l	Plan:	Date:		Tooling:	Da	te:	-	R	lun Stai	1/1	R1*
	QC:		Date:		SPC (Y/N):	Da	te:			Sto	*N	R2*
Sequence ID/ Work Center II	D	Operation Description Identify as per dwg & Sto	ck Locatio	on:8703	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 Packaging Packaging		Memo			0.00				43×		B	20 -S-3

0.00

0.00

QC21- Final Inspection - Work Order Release

Memo

140

140

Quality Control

W 13.05.30

Picklist Print

May-23-13 7:47:44 AM

Page 1

Work Order ID:

Parent Item Name:

102053

Parent Item:

Bolt

D3121-21

Start Date: 5/23/13

Required Date: 5/30/13

Start Qty: 40.00

Required Qty: 40.00

Comments:

IPP A04.02.09New issueKJ/DS

IPP Rev:B FCN 1060 07-11-12 DD verified by:FC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seg ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303H0.500 303 HEX BAR .500		Purchased	No			110	f	16.1850	0.0417	1.668			

Loc Code Location Loc Qty 16.185 MAT018 124761 16.185

1.6 (3.5.23

DART AEROSPACE LTD	Work Order:	102053
Description: Bolt	Part Number:	D3121-21
Inspection Dwg: D3121 Rev: E		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.375	+/-0.010	. 376			R9.02	
0.050 - 0.060	N/A	.052				
0.080	+/-0.010	.090		/		
10-32UNF3A	N/A					
Major Diameter	Max: 0.190 Min: 0.184	. 188				
Over wire	Max: 0.2146 Min: 0.2123	. 2/3				
· · · · · · · ·						
	(SAS					

Measured by: Audited by: Prototype Approval: N/A

Date: \$ - S - 23

Date: 13-05-24

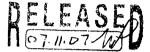
Date: N/A

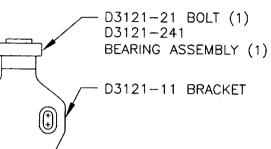
Rev	Date	Change	Revised by Appro	oved
Α	04.02.27	New Issue	KJ/RF	
В	06.03.09	Dwg Rev. updated	KJ/JLM	
С	06.06.14	Dwg Rev. updated	KJ/JLM	_
D	08.01.16	Dwg Rev. updated	KJ/EC/DD,	
E	08.07.23	Dimensions updated	KJ/DD X	



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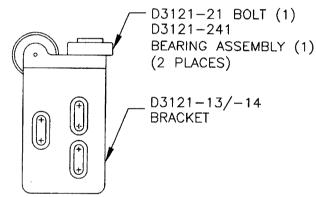
DESIG	4	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHEC	KED	APPROVED	DRAWING NO. REV. E
DATE	411		D3121 SHEET 1 OF 10 TITLE SCALE
	11.07		BRACKET ASSEMBLY 1:2
Α		02.04.15	NEW ISSUE
В		03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146
С		04.02.17	ADD CLEARANCE; USE -241 BEARING
D		06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000
Ε	_	07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)





D3121-041 BRACKET ASSEMBLY

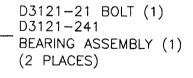
(REPLACES PREMIER P/N B30-23000-33)



D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

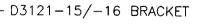
(REPLACES PREMIER P/N B30-23000-37/-38)





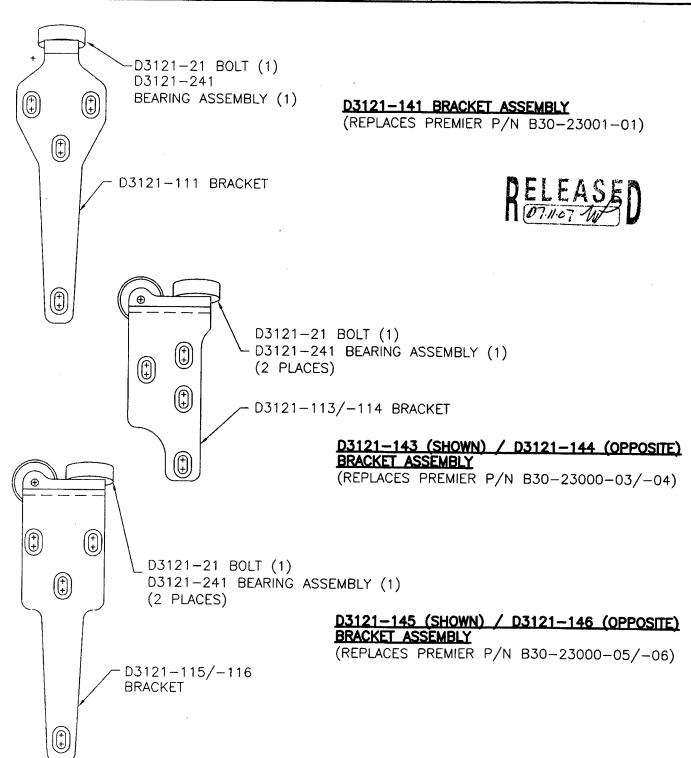
D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-35/-36)





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DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

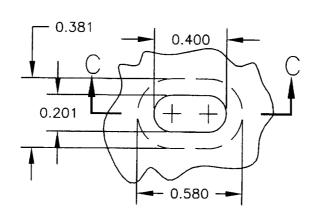


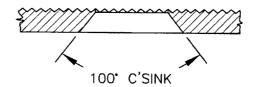
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1 4	-	D3121	SHEET 3 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1





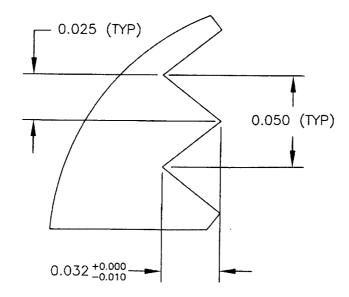


SECTION C-C



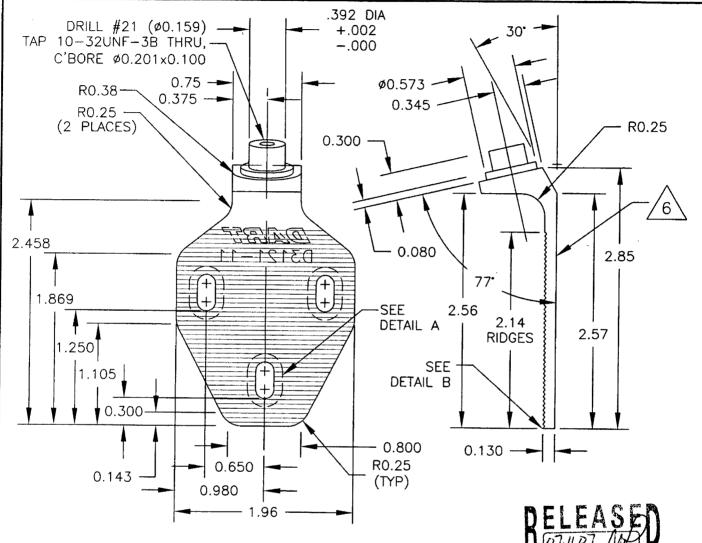
DETAIL B: RIDGE DETAIL

PARTIAL SECTION SCALE 1:20





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4H		D3121	SHEET 4 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1

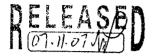


D3121-11 BRACKET

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



DESIGN	DRAWN BY	DART AEROS HAWKESBURY, ON	
CHECKED	APPROVED	DRAWING NO.	rev. e
4	1	D3121	SHEET 5 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



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DAV3T

D3121-13

1.220 - 1.800 **-**

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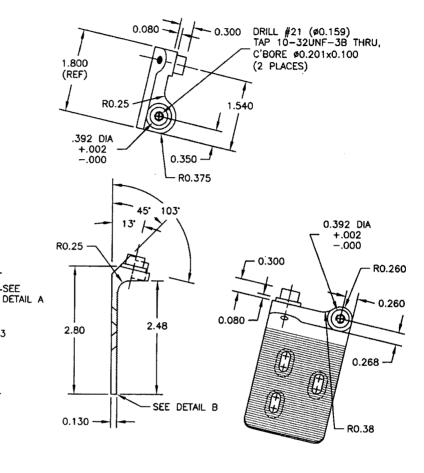
<u></u>6\

0.400 -

1.280

0.960

0.330

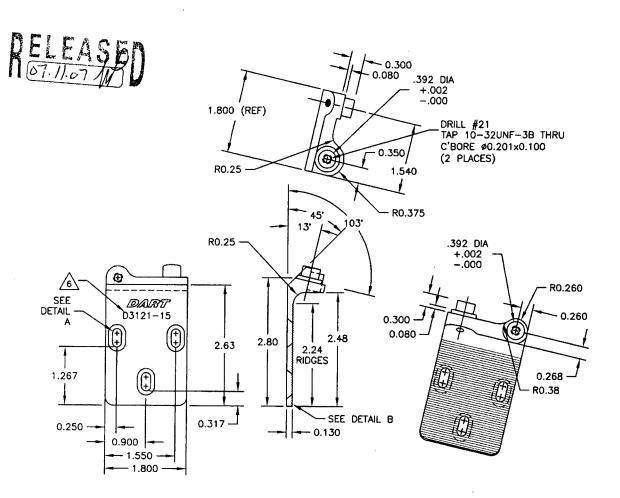




- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE STRENGTH = 150 ksi MIN YIELD TENSILE STRENGTH = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



DESIGN #	DRAWN BY		OSPACE LTD ONTARIO, CANADA
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98	9	D3121	SHEET 6 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

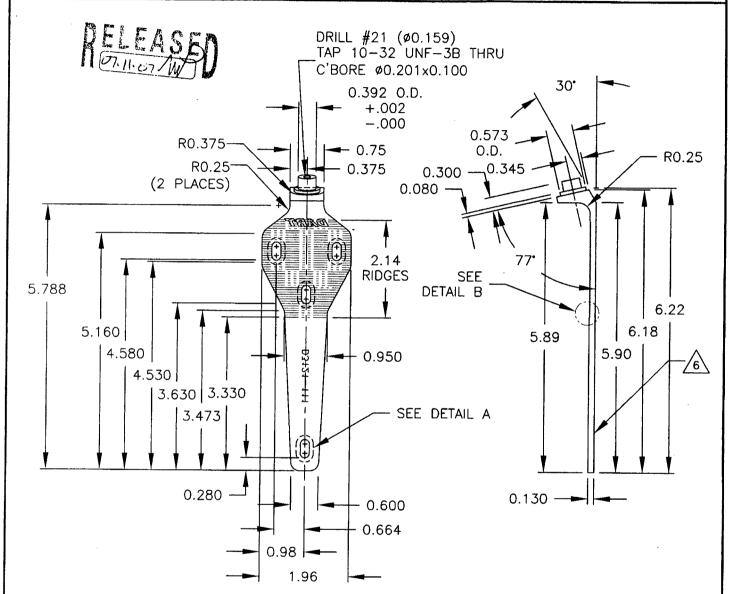


D3121-15 BRACKET (SHOWN) D3121-16 BRACKET (OPPOSITE)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



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4		D3121	SHEET 7 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

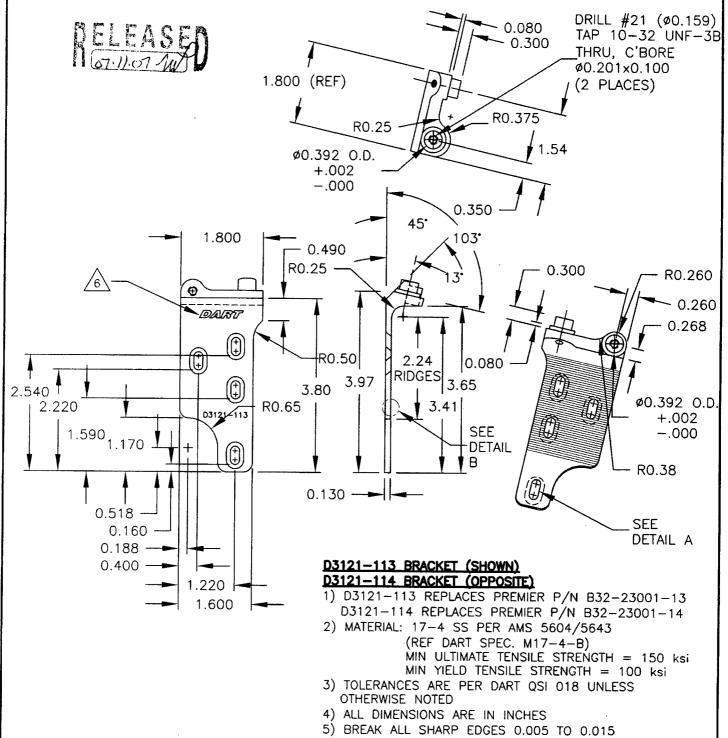


D3121-111 BRACKET

- 1) REPLACES PREMIER P/N B32-23001-11
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
- 7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



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4		D3121	SHEET 8 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

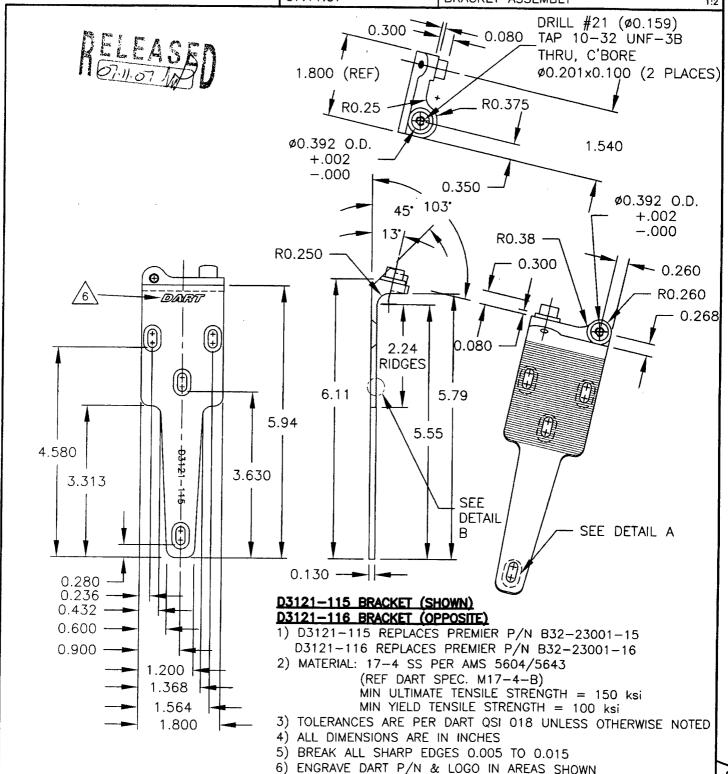


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6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN
7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005



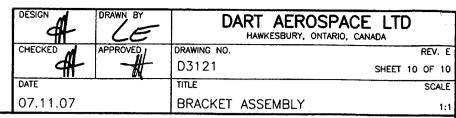
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DATE	7	TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

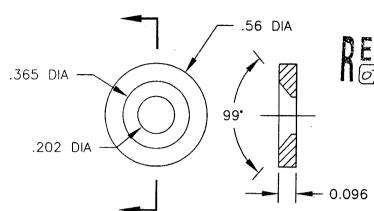


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HOLF IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

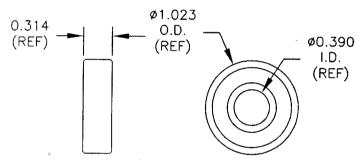






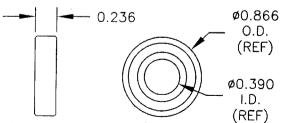
D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



D3121-23 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: SKF, P/N 61900-2Z
 OR KML P/N 6900-ZZ
- 2) ALL DIMENSIONS ARE IN INCHES

D3121-21 BOLT (SCALE 1:1)

- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE

0.375 -

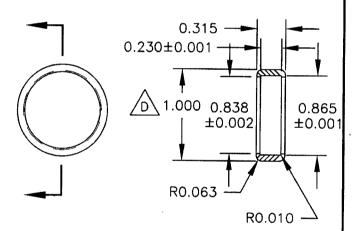
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

0.080

TAP 10-32 UNF-3A

0.050 TO 0.060

- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015

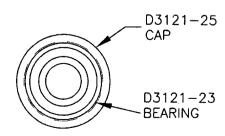


D3121-25 CAP (SCALE 1:1)

1) MATERIAL: DELRIN ROD, Ø1.25

(REF DART SPEC. M-DELRIN-R1.250)

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)

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